Abstract

Layer-3 communication, within a sub-network using a common forwarding agent's sub-network interface and without layer-2 communication, is enabled by a network device configured with the MAC address of the forwarding agent. The network device intercepts an ARP request from a sending device intended for a receiving device. The network device sends an ARP reply containing the MAC address of the forwarding agent to the sending device. The forwarding agent receives the ARP reply and forwards data-packets received from the sending device to the receiving device through layer-3.